

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte HIROTOSHI NOMURA, KEIJI NAKAYAMA,  
HISAKAZU TAKAGISHI and TOKUMI IKEDA

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Appeal No. 1996-0345  
Application No. 08/101,999<sup>1</sup>

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ON BRIEF

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Before COHEN, NASE and BAHR, Administrative Patent Judges.  
BAHR, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 5 through 7, which are all of the claims pending in this application.<sup>2</sup>

We REVERSE.

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<sup>1</sup> Application for patent filed August 4, 1993.

<sup>2</sup> Claim 5 has been amended after the final rejection (Paper No. 7).

BACKGROUND

The appellants' invention relates to a coater blade and backing roll combination. An understanding of the invention can be derived from a reading of exemplary claim 5, which appears in the appendix to the appellants' brief.

The prior art reference of record relied upon by the examiner in rejecting the appealed claims is:

Barusten                      JA 59-88995                      May 23, 1984  
(Japanese patent document)<sup>3</sup>

The following rejection is before us for review.

Claims 5 through 7 stand rejected under 35 U.S.C. § 103 as being unpatentable over Barusten.

The complete text of the examiner's rejections and response to the argument presented by the appellants appears in the answer (Paper No. 12, mailed May 16, 1995), while the complete statement of the appellants' argument can be found in the brief (Paper No. 11, filed May 1, 1995) and reply brief (Paper No. 13, filed June 19, 1995).

OPINION

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<sup>3</sup> A translation of this document, prepared for the PTO, was mailed to the appellants with Paper No. 6.

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art reference, and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

We shall not sustain the examiner's rejection of claims 5 through 7.

Barusten discloses a doctor blade used in combination with a rubber-coated support roller for smoothing layers of coating material applied to a paper web (7) conveyed between the support roller and the blade. The blade is made of flexible steel and is provided on its surface of operation (the surface that engages the paper web) with a surface coating (5) having greater abrasion resistance than that of the steel blade (translation, page 8). Barusten discloses that the coating is ideally "made to be round" or "convex" through polishing (translation, page 11, lines 16 to 19, and page 12, lines 3 to 6 and 11 to 17). Barusten does not expressly disclose that the support roller has a concave outer surface, much less that the surface of operation of the coated

blade has a "curvature corresponding to the quadratic equation which defines the curvature of said backing roll outer surface" as required by the claims on appeal.

In rejecting the claims, the examiner's position is that

since it was known in the art, at the time the invention was made, to adapt the blade to the coating environment via changing the shape or surface contour of the blade relative [to] the web disposed on the backing roll, and since all backing rolls have a curvature corresponding to a quadratic equation, it would have been obvious to one of ordinary skill in the art to adapt the shape or curvature of the blade to correspond with the shape or curvature of the backing roll, the roll curvature being based upon the quadratic equation, in order to effect a uniform coating of a desired amount or thickness on the web [answer, pages 4 and 5].

If, as the examiner contends, "all backing rolls have a curvature corresponding to a quadratic equation," the prior art discussed by Barusten (translation, page 6), which uses an "originally straight" blade with a backing roll, illustrates no recognition of the desirability of adapting the contour of the blade to the curvature of the backing roll. While Barusten does teach providing rounded contours on the surface of operation of the coated blade, there is no indication that Barusten recognized the need or desirability of adapting the contour of the surface of operation to particularly correspond

to the curvature of the backing roll. Rather, Barusten states:

In order to attain the coating with the best quality with respect to uniformity in the web coating, the blade coating before the installation area and/or within, and on the successive bevelled surface is formed with a tiled or convex round surface if possible. This indicates that a curved shape *without any sharp edged areas* is provided on the blade coating in these areas and is suitably attained through a similar gradual polishing procedure after coating [translation, page 14, emphasis added].

This suggests that Barusten's use of rounded surfaces is intended to avoid sharp edges which could impact on the uniformity of the coating. In any case, Barusten does not suggest adapting the contour of the surface of operation of the blade to the contour of the support roller.

Rejections based on 35 U.S.C. § 103 must rest on a factual basis. In making such a rejection, the examiner has the initial duty of supplying the requisite factual basis and may not, because of doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis.

In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 177 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968).

The examiner has not supplied the necessary evidence, that one of ordinary skill in the art would have recognized the desirability of adapting the shape of the blade to correspond with the concave curvature of the backing roll in order to effect a uniform coating, to support the conclusion of obviousness in this case. Thus, especially in light of the above-noted deficiencies of Barusten, it is our opinion that the examiner's conclusion of obviousness stems from impermissible hindsight reconstruction. Accordingly, we cannot sustain the examiner's rejection of claims 5 through 7.

#### CONCLUSION

To summarize, the decision of the examiner to reject claims 5 through 7 under 35 U.S.C. § 103 is REVERSED.

REVERSED

IRWIN CHARLES COHEN	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
JEFFREY V. NASE	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
	)	
	)	
JENNIFER D. BAHR	)	
Administrative Patent Judge	)	

JDB/pgg  
FLYNN, THIEL, BOUTELL & TANIS, P.C.  
2026 Rambling Road  
Kalamazoo, MI 49008